

HEAVY TIE-THRU FORMING

INNER TIE-THRU

HIGH TENSILE STEEL WILLIAMS B1S High Tensile Tie Rods, B5S Pigtail Anchors, B7S and B8S Continuous Thread Rod

| THREAD DIA. | THREAD PITCH | | SAFE * WORKING LOAD | MAX. WORKING LOAD TO ELASTIC LIMIT | AVERAGE ULTIMATE STRENGTH |
|----------------|--------------|--------|----------------------------|------------------------------------|-----------------------------|
| | COIL THD. | V THD. | | | |
| 3/8" 10mm | 8 | 16 NC | 4,900 lbs. (21.8 kN) | 7,500 lbs. (33.4 kN) | 9,800 lbs. (43.6 kN) |
| 1/2" 12mm | 6 | 13 NC | 9,000 lbs. (40.0 kN) | 13,000 lbs. (57.8 kN) | 18,000 lbs. (80.1 kN) |
| 5/8" 16mm | 4-1/2 | 11 NC | 11,250 lbs. (50.0 kN) | 18,000 lbs. (80.0 kN) | 22,500 lbs. (100.0 kN) |
| 3/4" 20mm | 4-1/2 | 10 NC | 19,000 lbs. (84.5 kN) | 30,000 lbs. (133.5 kN) | 38,000 lbs. (169.0 kN) |
| 7/8" 22mm | 4-1/2 | 9 NC | 29,000 lbs. (129.0 kN) | 46,000 lbs. (204.6 kN) | 58,000 lbs. (258.0 kN) |
| 1" 25mm | 3-1/2 | 8 NC | 37,500 lbs. (166.7 kN) | 60,000 lbs. (266.8 kN) | 75,000 lbs. (333.5 kN) |
| 1-1/8" 30mm | 3-1/2 | - | 42,500 lbs. (189.0 kN) | 67,000 lbs. (298.0 kN) | 85,000 lbs. (377.8 kN) |
| 1-1/4" 32mm | 3-1/2 | 7 NC | 60,000 lbs. (266.8 kN) | 90,000 lbs. (400.4 kN) | 120,000 lbs. (533.7 kN) |
| 1-1/2" 38mm | 3-1/2 | - | 70,000 lbs. (311.4 kN) | 112,000 lbs. (498.2 kN) | 140,000 lbs. (622.8 kN) |
| 2" 51mm | - | 6 UN | 155,000 lbs. (689.4 kN) | 255,000 lbs. (1134.3 kN) | 310,000 lbs. (1379.0 kN) |

*Based on approximate 2 to 1 Safety Factor.



R61 GRADE 75 A-T ROD

High strength AT-Rod has a right hand continuous rebar thread deformation to the requirement of ASTM A 615. Available in lengths up to 50'-0".

| NOMINAL BAR DIAMETER | NET AREA THRU THREADS IN ² /mm ² | SAFE WORKING LOAD AT 2:1 S.F. LBS./Kn | ULTIMATE STRENGTH LBS./Kn |
|----------------------|--|---------------------------------------|---------------------------|
| #6 (20mm) | .44 / 284 | 22,000 / 98 | 44,000 / 196 |
| #7 (22mm) | .60 / 387 | 38,000 / 169 | 76,000 / 338 |

H4R NEOPRENE WATER SEAL WASHER

Designed to prevent water leakage along the tie rod. Available in tie rod sizes 1/2" - 1-1/4". Special sizes available upon request.



| Rod Diameter | Washer O.D. | Thickness Lbs./kN |
|---------------|--------------|-------------------|
| 1/2" (12mm) | 1" (25mm) | 1/8" (3.1mm) |
| 5/8" (16mm) | 1-1/4" | |
| 3/4" (20mm) | 1-1/4 (32mm) | |
| 7/8" (22mm) | 1-3/8" | |
| 1" (25mm) | 1-1/2" | 3/16" (4.7mm) |
| 1-1/8" (30mm) | 1-5/8" | |
| 1-1/4" (32mm) | 1-7/8" | |

B7G CONTINUOUS MILD STEEL COIL ROD

WILLIAMS B7G Coil Rod is manufactured in mild steel. It is available in 3/4", 1" and 1-1/4" diameters. Standard lengths: 10'0". Stocked in all diameters. See chart below for strengths.



| B7G MILD STEEL CONTINUOUS COIL THREAD ROD | | |
|---|---------------------------|---------------------------|
| DIAMETER - PITCH | SAFE WORKING LOAD LBS./Kn | ULTIMATE STRENGTH LBS./Kn |
| 3/4" - 4-1/2 | 9,000/ 40.0 | 18,000/ 80.6 |
| 1" - 3-1/2 | 18,000/ 80.6 | 36,000/ 160.1 |
| 1-1/4" - 3-1/2 | 27,000/ 120.1 | 54,000/ 240.2 |

Based on 2 to 1 Safety Factor.
Mild steel 10' standard length.